



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,473	01/09/2002	W. Alan Burris		6088

37211 7590 11/08/2006

BASCH & NICKERSON LLP
1777 PENFIELD ROAD
PENFIELD, NY 14526

EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,473

Applicant(s)

BURRIS ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-24 and 26-33 is/are pending in the application.
4a) Of the above claim(s) 33 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 10-24, 26-32 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This is in response to the Amendments filed on 8/14/2006.
2. Claims 1-8, 10-24, 26-33 are currently pending in this application. Claim 1 has been amended. Claim 33 has been newly added.
3. Initially, the examiner had mistaken that the apparatus claims were patentable. However, upon further consideration, the examiner realized that the previous issues addressed in the prior Office action have not been resolved. Therefore, the rejections of the claims are maintained below. And for this reason, this Office action is made Non-Final.

Election/Restrictions

4. Newly submitted claim 33 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 33 is directed to a process, whereas the original invention to a device.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 33 has been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1711

6. Claims 1-8, 10-24, and 26-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 contains the newly added limitation, "non-pressurized supply" that has no support anywhere in the specification as originally presented.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite due to the use of "the ozone containing gas is made by a corona discharge generator". Since the parent claim, claim 1, states that, "a generator producing an ozone containing gas", applicants are required to rephrase the language in claim 3 to reflect that the ozone generator is a corona discharge generator.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-7, 10-24, and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burris (US Pat. 5,213,773) in view of Burris (US Pat. 5,207,993).

Art Unit: 1711

Burris '773 teaches a liquid treatment system 10, comprising an untreated liquid source 11, a corona discharge ozone generator 20, a gas check valve 22, a liquid check valve 16, a venturi 21 or pump 25 (static mixer), for conducting the ozone-containing gas and the untreated liquid to the venturi or the pump, a control system 12, an outlet for liquid containing ozone to pass through filter 31; wherein the ozone-containing gas is mixed with the untreated liquid before the liquid is output (see abstract; Figures 1-5). Note: the examiner is treating the gas valve 22 and the venturi 21 or pump 25 would constitute a gas pumping system and the liquid valve 16 and the venturi 21 or pump 25 would constitute a liquid pumping system.

Burris '733 further teaches the pump means or venturi to combine and mix the ozone-containing gas and the untreated liquid and delivers the mixture to a contact chamber 18 via an inline mixer 19 (see col. 3, ln. 13-25). The reference teaches vent 26 to vent excess ozone out of the chamber 18, an ozone reducer 28 the concentration of any ozone escaping to the atmosphere (see col. 3, ln. 28-34).

Burris '773 further teaches pump 25 or 35 a positive pressure liquid pump that can withdraw the untreated liquid from source 11 or excess ozonated liquid from chamber 18 and mix the liquid with the ozone-containing gas (see Fig. 1-2; paragraph bridging col. 4-5).

Burris '773 further teaches a manually demand switch connected to a control system and an outlet for controlling the flow of the delivery system (see Fig. 4). A solenoid valve is used in connection with the control system. The use of the solenoid valve would give a pulsation to the flow. It is noted that Burris '773 also teaches that features in the drawings can be interchanged and can be combined to form different embodiments (see col. 2, ln. 35-42). Thus, the invention of the reference is also inclusive of the presently claimed invention.

Art Unit: 1711

Moreover, in regards to claims 7-8, 10-14, 18-22, 24, 26-27, 30, 32, it has been within the skill in the art that process limitations, such as how an apparatus is operated, how a concentration is determined, or how much ozone is produced, would have no patentable weight in an apparatus claim.

Burris '773 does not teach the reservoir to be non-pressurized. Burris '993 teaches the use of a non-pressurized reservoir 11 (see Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed a non-pressurized reservoir, as taught by Burris '993, in the apparatus of Burris '773, and would have given the same results. This is because it has been within the skill in the art that these reservoirs have been used as alternatives of each other and substituting one for another would have given the same results, as disclosed in the instant specification.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burris '773 and Burris '993 as applied to claim 1 above, and further in view of Burris (US Pat. 5,422,043) or Burris (US Pat. 5,858,283).

Burris '773 and Burris '993 are as set forth in claim 1 above and incorporated herein.

The Burris '773 combination does not teach the use of a diffuser to disperse the ozone-containing gas into the liquid.

Burris '043 or Burris '283 teaches the use of a diffuser for dispersing gas bubbles into a liquid (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used a gas diffuser, as taught in Burris '043 or Burris '283, into the apparatus of Burris '773, for enhancing the dispersal of the ozone-containing gas into the liquid.

Response to Arguments

12. Applicants' arguments filed on 8/14/2006 have been considered, but they are not found persuasive.

In response to the applicants' arguments that support for the non-pressurized reservoir is provided in the specification, page 5, lines 30-32, it is noted that the specification does not recite a non-pressurized or any negative limitation. Moreover, by disclosing that the reservoir needs to be refilled or changed when the liquid supply runs low, the applicants show that the pressure needed for the reservoir to output the liquid is from gravity (mgh), which is proportional to the mass and height of the liquid. Thus, the reservoir is also pressurized. In response to the applicants' argument that if the reservoir were to be pressurized, the valves of FIG 5a-5c would not be necessary, it is noted that valves are commonly used to control the output of a fluid, and the use of valves is not an indication of an absence of pressure. In general, a flow cannot occur without a source of pressure. Applicants are suggested to include limitations, other than "non-pressurized", to differentiate the presently claimed reservoir from the prior art.

13. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

Art Unit: 1711

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Burris '993 is used to illustrate that a non-pressurized reservoir has been taught in the prior art to deliver liquid to the treatment chamber. Since either type of reservoir can deliver liquid to the treatment chamber, the use of one type or another would have given the same results. Thus, Burris '993 is used to remedy Burris '773.

The applicants further argue that Burris '773 does not teach a delivery system to direct the liquid containing dissolved ozone to the point of use, where the flow rate is adjusted by a user. However, as pointed out before, Fig. 4 in the reference illustrates a manually demand switch connected to a control system and an outlet for controlling the flow of the delivery system. Moreover, in col. 1, last paragraph, Burris '773 discloses the control system connected to a switch that is arranged in a way that upon manual action by a user demanding the treated liquid, the switch can be on to initiate a treatment cycle.

In response to the applicants' argument that Burris '773 does not teach the treated liquid containing dissolved ozone, it is noted that the reference does disclose liquid containing ozone for use in rinses or washes and various other uses (see col. 2, ln. 60-64). This teaching also shows that the generator produces more ozone than can be dissolved in the liquid flow. Moreover, in regards to claims 7-8, 10-14, 18-22, 24, 26-27, 30, 32, it has been within the skill in the art that process limitations, such as how an apparatus is operated or how a concentration is determined, would have no patentable weight in an apparatus claim.

In response to the applicants' arguments that Burris '773 does not teach a pulsation device to pulsate the liquid as it leaves the controllable delivery system, it is noted that in the

Art Unit: 1711

treatment system of Burris '773, a solenoid valve is used in connection with the control system. The use of the solenoid valve would give a pulsation to the flow. It is further noted that Burris '773 also teaches that features in the drawings can be interchanged and can be combined to form different embodiments (see col. 2, ln. 35-42), thus inclusive of the presently claimed invention.

In response to applicant's argument that there is no suggestion to combine the references to reject claim 8, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Burris '043 is used to illustrate that the use of gas diffusers have been known in the art to form smaller gas bubbles to speed up the dissolving of the gas into a liquid.


Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thao T. Tran
Primary Examiner
Art Unit 1711

tt

November 1, 2006